SPENT NUCLEAR STABILIZATION AND DISPOSITION (RL-0012)

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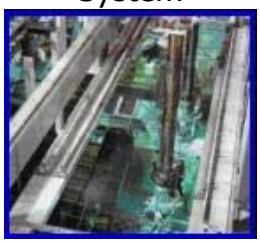
K East Basins - Fuel Transfer System Operations

Canister Storage Building – Multi-Canister Overpack Welding

Sludge Retrieval and Disposition - Test loading large diameter container into casks at K Basins

K West Basins

Fuel Retrieval System



Canister Cleaner Operations

Loading Cask on Trailer at K West

Cold Vacuum Drying Facility – Multi-Canister Overpack Processing

OVERVIEW

This section addresses work in Project Baseline Summary RL-0012, *Spent Nuclear Fuel Stabilization and Disposition*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of May 2004.

NOTABLE ACCOMPLISHMENTS

Sludge Disposition Alternatives: Preparations for the retrieval of North Loadout Pit (NLOP) sludge continued. The FH Operations Readiness Review (ORR) for the loading of the large diameter container was successfully completed. This enables the DOE-HQ's ORR to proceed (Note: The DOE-HQ ORR was successfully completed on May 26, 2004, and NLOP sludge operations commenced June 17, 2004). Efforts continue to prepare the Pacific Northwest National Laboratory (PNNL) 325 Facility for acceptance and treatment of sludge. The PNNL ORR is planned to be performed in November 2004.

A bidder's conference was held to determine contractor interest in bidding on the contract for design, construction, and operation of the full-scale sludge immobilization facility. The Request for Proposal will be issued in June, with bids due in mid-August 2004.

Tri-Party Agreement (TPA) Milestones: RL and FH have successfully negotiated proposed changes for the TPA milestones associated with sludge retrieval and basin disposition. The negotiated milestones reflect the currently proposed contract changes associated with the accelerated sludge disposition approach and the basins grout and remove approach. The milestone change packages have been issued for public review and comment prior to final approval by the three parties (the United States Environmental Protection Agency, State of Washington Department of Ecology, and RL).

Fuel Transfer System (FTS): Spent Nuclear Fuel (SNF) completed 30 FTS shipments (300 canisters) during the month of May. As of June 16, 2004, a cumulative total of 352 FTS shipments (3,518 canisters) have been completed.

Fuel Movement Activities: SNF completed 11 multi-canister overpack (MCO) shipments containing 58 metric tons of heavy metal (MTHM) from the K West Basin to the Cold Vacuum Drying Facility during May. As of June 16, 2004, a cumulative total of 346 MCOs containing an estimated 1,879 MTHM have been shipped.

MCO Welding at the Canister Storage Building (CSB): SNF welded and "N" stamped 18 MCOs during May. As of June 16, 2004, a cumulative total of 202 MCOs were welded and "N" stamped, which is 19 MCOs ahead of the baseline schedule.

Deactivation: The procurement was awarded for the KE Discharge Chute grout mix design and test pour to demonstrate vendor capability. Documentary evidence to confirm that the KE Discharge Chute meets accepted waste disposal criteria has been assembled. Revisions have been transmitted to RL for the K Basins Remedial Design Report/Remedial Action to incorporate the planned actions for the Discharge Chute. Specific items of the debris reduction and removal equipment associated the KE wash/load-out station have been received and installed, and are currently undergoing testing in the KE Basin.

ISSUES

Fuel Production: As of June 16, 2004, SNF is approximately one week behind the revised MCO production schedule. FH has obtained approval to revise its overly-conservative airborne radiological control limits to be 30 percent of the DOE limit. This will enable most remaining underwater work in the basins to be performed without respiratory protection, thus improving the current FTS production rates. FH revised the shift schedule for MCO workers which should result in improved MCO production rates.

FY 2004 FH FUNDS VS. SPEND FORECAST ($000)

	FY 2004 Anticipated Funding w/Carryover	FY 2004 Fiscal Year Spend Forecast	Variance
SNF Stabilization & Disposition	$ 180,531	$ 193,696	$ (13,165)

The current funding allocation includes $2M for moving the Fast Flux Test Facility (FFTF) un-irradiated fuel from the Plutonium Finishing Plant (PFP) to the CSB. It has now been determined that the FFTF un-irradiated fuel will be stored at PFP and shipped directly from PFP to the Savannah River Plant. The FY 2004 funds associated with FFTF fuel movement will be reallocated to other Hanford work priorities.

SNF will utilize the projected under run within the 2012 Accelerated Completion Control Point to offset the forecasted over-run above.

FY 2004 SCHEDULE/COST PERFORMANCE ($K)

	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance $	Schedule Variance %	Cost Variance $	Cost Variance %	Budget At Completion
SNF Stabilization & Disposition	108,328	73,423	127,491	-34,905	-32%	-54,067	-74%	161,739

Numbers are rounded to the nearest $K and include the closure services allocation.

Schedule Performance (-$34,905K/-32%): The unfavorable schedule variance is due to:

- FTS and MCO shipment delays (-$9,875K);
- Ceasing deactivation work not required for the grout and remove option (-$4,500K);
- Ceasing work associated with the baseline sludge retrieval plan that is inconsistent with the accelerated sludge retrieval and disposition approach (-$15,388K);
- Value of general support activities that are apportioned to the overall project progress for earned value measurement purposes (i.e., surveillance and maintenance, engineering, project management, etc.) (-$5,467K); and
- The unfavorable schedule variance is partially offset by a favorable performance for MCO welding (+$325K).

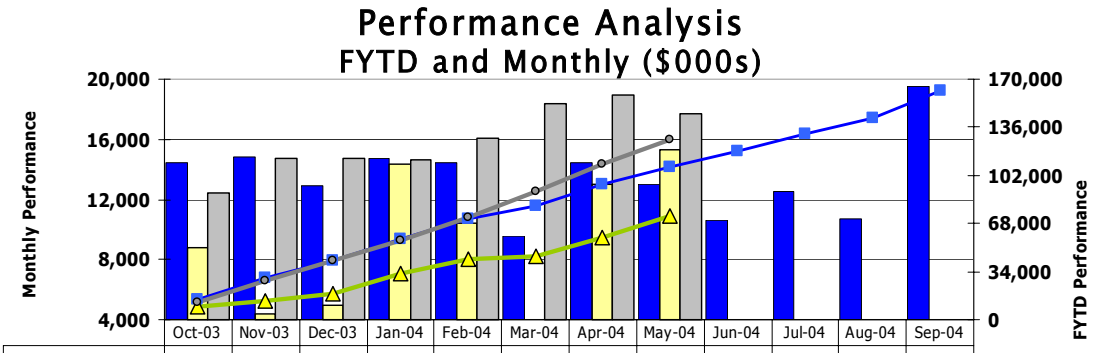
The schedule variance for the spent nuclear fuel portion will slowly self-correct as the fuel continues to be moved.

FY 2004 SCHEDULE/COST PERFORMANCE, CONTINUED

Cost Variance (-$54,067K/74%): The unfavorable cost variance is due to:

- FTS and MCO shipment delays, i.e., staffing requirements remain unchanged regardless of fuel production levels until fuel production is complete (-$23,301K);
- Implementation of the grout and remove option per RL direction pending completion of contract negotiations and implementation of the baseline adjustment (-$1,106K);
- Implementation of the accelerated sludge disposition path per RL direction pending completion of contract negotiations and implementation of adjusted baseline (-$21,270K); and
- Value of general support activities that are apportioned to the overall project progress for earned value measurement purposes (i.e., surveillance and maintenance, engineering, project management, etc.) (-$8,390K).

The expected cost variance upon completion of fuel is expected to be about $28.2 million, which is directly attributable to the additional six months to support completion of the fuel movement. The majority of the sludge and deactivation variances will be resolved once a baseline change to incorporate the revised scope and schedule is implemented, currently planned for July 2004.



	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04
Monthly BCWS	14,411	14,822	12,935	14,739	14,447	9,527	14,427	13,021	10,638	12,502	10,723	19,548
Monthly BCWP	8,747	4,354	4,962	14,329	10,418	2,340	12,992	15,282				
Monthly ACWP	12,417	14,751	14,696	14,609	16,059	18,360	18,937	17,662				
FYTD BCWS	14,411	29,233	42,168	56,907	71,354	80,880	95,308	108,328	118,966	131,468	142,191	161,739
FYTD BCWP	8,747	13,101	18,063	32,392	42,810	45,150	58,142	73,423				
FYTD ACWP	12,417	27,168	41,864	56,473	72,531	90,891	109,828	127,491				

MILESTONE ACHIEVEMENT

Number	Milestone Title	Type (TPA/PI/ DNFSB)	Due Date	Actual Date	Forecast Date	Status/ Comments
M-34-29 (S15-02-001)	Complete K East Basin and K West Basin facility modifications for Alternate Fuel Transfer System casks transportation system	TPA	3/31/02	9/12/02		Complete
M-34-12-T01 (S15-02-001)	Complete construction of SWS (Construction Completion Document Section IIA)	TPA	9/30/02	3/4/03		Complete
M-34-17 (S00-02-901)	Initiate K East to K West fuel transfer	TPA/Performance Incentive (PI)	11/30/02	11/25/02		Complete
M-34-18A (S03-03-068)	Complete removal of 957 MTHM of SNF from the K West Basin	TPA/PI/DNFSB	12/31/02	1/7/03		Complete
M-34-08 (S04-02-205)	Initiate full scale K East Basin sludge removal	TPA/PI/DNFSB	12/31/02		8/1/04	Missed. See note below
M-34-27-T01 (S03-03-069)	Complete removal of 1,252 MTHM of SNF from K West Basin	TPA	5/31/03	5/28/03		Completed 5/28/03, 3 days ahead of schedule
M-34-28 (S03-03-070)	Complete removal of 1,619 MTHM form the K West Basin	TPA	12/31/03	1/13/04		Complete
M-34-25-T01 (S03-04-001)	Complete transfer of K East Basin SNF to K West Basin	TPA/PI	5/31/04		6/30/04	Working to complete by 6/30/04
M-34-18B (S00-00-902)	Complete removal of all K Basin SNF	TPA/PI/DNFSB	7/31/04		8/31/04	Working to complete by 8/31/04
S04-00-205, CD4	Complete ORR for sludge transfer from K Basins		12/31/02		5/15/04	Missed. See note below
M-34-10 (S04-01-215)	Complete sludge removal from K Basins	TPA/PI/DNFSB	8/31/04		TBD	See note below

MILESTONE ACHIEVEMENT, CONTINUED

Number	Milestone Title	Type (TPA/PI/ DNFSB)	Due Date	Actual Date	Forecast Date	Status/ Comments
M-34-23 (S10-99-953)	Start K East water removal	TPA	9/30/04		9/30/04	See note below
S07-04-005	Consolidate spent fuel in the 200 Area	PI	9/30/04		9/30/04	On schedule
M-34-09-T01 (S04-05-516)	Complete K Basins rack and canister removal	TPA	1/31/05		1/31/05	See note below
M-34-24 (S10-99-954)	Complete K East Basin water removal	TPA	6/30/05		9/30/05	See note below
M-34-22-T01 (S10-99-952)	Complete K West Basin water removal	TPA	9/30/05		8/31/06	See note below
M-34-21 (S10-99-951)	Initiate full-scale K West Basin water removal	TPA	2/1/05		10/31/05	See note below
S04-06-005	Transfer of K Basins to the River Corridor Contractor	PI	10/30/05		10/30/05	On schedule
M-34-00A (S10-99-955)	Complete removal of K Basin fuel/sludge/debris/ water from K Basins	TPA (Major)	7/31/07		7/31/07	See note below

NOTE: Milestone subject to possible change based on accelerated K Basin sludge disposal and basin deactivation approach.